

Appl. No. 10/601,833
Amendment dated: July 7, 2005
Reply to OA of: April 7, 2005

REMARKS

Applicants have amended claim 1 in terms of format to more particularly define the invention. Two additional claims, claims 13 and 14, have been added to the application to further specific aspects of the invention with respect to the composition of the mixed nickel oxide layer and as fully supported by Applicants' specification. Applicants most respectfully submit that all of the claims now present in the application are in full compliance with 35 USC 112 and are clearly patentable over the references of record as applied in the outstanding rejection.

The rejection of claims 1-12 over 35 USC 103(a) as obvious either the cited JP 62-137739 and JP 62-144998, each in combination with the teachings of the Wada patent has been carefully considered but is most respectfully traversed.

Please note that claim 1 of the presently claimed invention recites "said mixed nickel oxide comprises NiO and Ni₂O₃ as a major portion"; and claim 2 recites "said mixed nickel oxides in said recording layer decomposes to release a gas upon heating".

On the contrary, the cited JP 62-137739 is a phase-change optical recording disc having a recording layer containing Sn and NiO, wherein the Sn embedded in the NiO will be changed from an amorphous phase having a low reflection ratio to a crystalline phase having a high reflection ratio upon irradiation of a laser of 830nm. NiO is for improving weatherability mainly, and has nothing to with the recording mechanism.

The cited JP 62-144998 has a recording layer containing Te and NiO, and similarly the Te is a phase-change material responsible for the recording mechanism, and NiO is for improving weather resistance. As shown in Table 1 in JP 62-144998, the optical recording disc functions well when NiO is 0%. On the contrary, the presently claimed invention uses a recording layer comprising NiO and Ni₂O₃, wherein Ni₂O₃ will decompose to release a gas upon heating as the following equation:



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The Ni₂O₃ is responsible for the recording mechanism in the subject invention.

In view of the above, neither the cited JP 62-137739 nor JP 62-144998 teach or suggest using Ni₂O₃ in the recording layer, but using NiO for improving weather resistance. Most importantly, the NiO used in the cited JP 62-137739 and JP 62-144998 does not have the same function of the Ni₂O₃ used in the recording layer of the presently claimed invention. This difference is not obvious to one of ordinary skill in the art and the teachings of the Wada references does not overcome the teachings of the primary references as discussed above. Accordingly, it is most respectfully requested that these rejections be withdrawn.

In view of the above comments and further amendments to the claims, favorable reconsideration and allowance of all of the claims now present in the application are most respectfully requested.

Respectfully submitted,

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